

T 72: Hauptvorträge 3

Zeit: Mittwoch 8:30–10:30

Raum: RW 1

Hauptvortrag T 72.1 Mi 8:30 RW 1
Heavy Flavour Physics at the LHC — ●JONAS RADEMACHER —
H H Wills Physics Laboratory, University of Bristol, UK

The vast number of charm and bottom hadrons produced at the LHC provides a unique opportunity for high precision flavour physics. The unprecedented precision possible at the LHC, especially at the dedicated flavour physics experiment, LHCb, results in a new level sensitivity to physics beyond the Standard Model. This approach probes mass scales far exceeding the LHC collision energy, and provides information that is complementary to the New Physics searches at ATLAS and CMS. We will report on recent results from LHCb, as well as flavour physics results from ATLAS and CMS, and briefly discuss the future prospects of flavour physics at the LHC and the LHCb upgrade.

Hauptvortrag T 72.2 Mi 9:10 RW 1
Scattering amplitudes and hidden symmetries in supersym-

metric gauge theory — ●JAN PLEFKA — Institut für Physik,
Humboldt-Universität zu Berlin

We give a brief introduction to four dimensional supersymmetric gauge theories and their holographic description in terms of a higher dimensional string theory known as the AdS/CFT correspondence. The focus of the talk will then be on an overview of recent results for scattering amplitudes in this setting, their string dual description and the emergence of hidden symmetries pointing towards an integrable structure of maximally supersymmetric gauge theory.

Hauptvortrag T 72.3 Mi 9:50 RW 1
The Higgs boson and physics beyond the Standard Model —
●MICHAEL KRÄMER — RWTH Aachen University

The discovery of a Higgs boson at the LHC was a breakthrough for particle physics. We review the properties of the Higgs particle and discuss the implications for physics beyond the Standard Model.